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THE FINANCIAL IMPLICATIONS OF INTERNATIONAL TRADE PARTICIPATION BY ALBERTA SECONDARY INDUSTRIES

by

© Gregory M. Darychuk

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled THE FINANCIAL IMPLICATIONS OF INTERNATIONAL TRADE PARTICIPATION BY ALBERTA SECONDARY INDUSTRIES, submitted by Gregory M. Darychuk, in partial fulfilment of the requirements for the degree of Master of Business Administration.

ABSTRACT

The purpose of this study was to examine the financial issues a firm encounters when undertaking or expanding it's export sales and to provide a basis from which future research could be done in this area. Two hypotheses were formulated: Participation in international trade requires a change in the asset structure of the firm that would not be required if the firm limited itself to domestic trade; and the financing of assets needed for foreign trade differs from the financing of assets for domestic trade with respect to the risk factor assigned, the suppliers of capital, and the amount and type of collateral required. Interview data was collected from a sample of fifteen Alberta manufactures.

The general, tentative conclusions that emerged from examining the interview results were that firms required more (but not proportionately more) and different assets for foreign sales, and that financing may impose some limitations on the formation of these assets.

The study concludes by advancing a number of proposals for related, and more definitive research.

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Chapter I

INTRODUCTION

Purpose of the Study

For many firms in these times of diminishing political[1] and logistic barriers, the most practical strategic stance may not be the bounds of the local or national trade area but within the scope of the international trade community. As the boundaries of the trade area expand the nature and scope of business changes substantially.

This paper is intended as a pilot study of the financial implications a firm encounters when undertaking or expanding its export sales. Two hypotheses will be evaluated to determine the extent to these implications and whether these implications limit Alberta's Secondary Industries participation in international trade.

Hypothesis 1 states: Participation in international trade requires a change in the asset structure of the firm that would not be required if the firm limited itself to domestic trade.

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1. "The single and most important conclusion is that in the past decade there has emerged an expectation and desire for a rapid growth in the world trade; and that there has also arisen a broad range of support for policies expected to encourage and extend such trade." David W. Slater, Canada in the Atlantic Economy, Vol. 1: World Trade and Economic Growth: Trends and Prospects with Application to Canada (Toronto: University of Toronto Press, 1968) p. 92.

The examination of this hypothesis requires a clear distinction to be drawn between the differences in the amounts of assets held, and the difference in the type of assets held.

Participation in foreign trade could result in three changes in the asset structure of the firm. First, the type of assets a firm must hold may change. Types of assets that may be required are: holdings of foreign currency, holdings of foreign receivables, foreign held inventories, and foreign assembly and distribution facilities.

Second, the type of assets held may remain the same but the amounts of assets necessary may change. For example, participation in foreign trade may require a larger investment in domestic inventories to meet the demands of the foreign market. An increased investment in domestic production facilities may also be required.

Third, the changes in the asset structure of the firm could consist of a change in both the amount and the type of assets held. For example, a firm involved in foreign trade may be required to hold foreign inventories and increased amounts of domestic inventories.

Hypothesis 2: The financing of assets needed for foreign trade differs from the financing of assets for domestic trade with respect to the risk factor assigned, the suppliers of capital, and the amount and type of collateral required.

In examining the above hypothesis answers to the following questions will be sought. Are the sources of funds different if

a firm is involved in international trade? Do lending institutions value assets assigned to foreign trade in the same manner as they do assets used for domestic trade when these assets are used as collateral? Do stockholders require a greater return on their investment in foreign trade as opposed to their investment in domestic trade? If so, why? How much greater?

If changes in the asset structure of the firm do occur, the question of financing these changes will be examined. A change in type or amount of assets may create problems that are unique to those firms involved in foreign trade. If so, what are these problems and how difficult are they to overcome.

This project is a pilot study and no attempt will be made to formally test the significance of the findings on the various factors encompassed in the two hypotheses. It is the intent of the writer to establish the basis for further study in the area by either the public or private sector.

For example, one study that might be made possible would be the determination of the differential cost of borrowing for foreign trade. If the second hypothesis is found to hold, another study of particular interest to the public sector would be whether or not these differences inhibit entry into foreign markets. If they inhibit entry, what are the policy implications.

A further examination of the possible areas of future study will be left to conclusions of this study in Chapter V.

Trends in International Trade

The size and composition of world trade has changed enormously since the 1900's and these changes have for the most part been reflected in the Canadian experience. Slater makes the following observation:

> "Compared with world output or income, trade declined in the first part of this century and shrank at an accelerated rate during the 1930's and the Second World War. While these trends were attributed partly to increased trade barriers, they were also felt to result largely from persistant features of modern economic development. Since the end of the war and into the 1960's, recovery has been followed by a huge new wave of trade expansion, so much so that in recent years international trade has grown more rapidly than output."[1]

Although one of the primary characteristics of world trade has been its rapid growth, the change in the composition of trade is also of interest to this study.

Table 1 in the Appendix shows the principal trends in manufactures versus primary product structure of world trade. In the 60 years prior to the late 1920's, the volume of trade in primary products increased as rapidly as that in manufactures. The depression and international economic breakdown of the 1930's caused a break in this historical trend with the volume of trade in manufactures being much more depressed than volume of trade in primary products. During the 1940's trade in manufactures recovered while trade in the

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1. Ibid., p. 1

primary sector stagnated.

Although trade in the primary product sector recovered substantially in 1950, the last fifteen years has produced a rapid change in the makeup of international trade with manufactures playing an ever increasing role. This departure from the trend established in the half century prior to 1929 is expected to continue as a result of an increased output in manufacturing as compared to a slower growth in output in the primary sector. The increased specialization and trade within manufactures is another reason why it is felt that this trend will continue.

While Canada's trade trends have been influenced a great deal by the movements in world trade, they have shown some divergence. In the second and third decades of this century Canadian trade grew rapidly while growth in world trade was reduced. In the late 1950's and early 1960's Canadian trade grew at a somewhat slower rate than did world trade.

Slater notes that:

> "The result of all these ups and downs is that Canada's share in over-all world trade is now one-quarter to one-third higher than in the late 1920's, and the proportionate expansion of Canada's world trade in manufactures is somewhat larger. The great bulk of these manufactured exports continues to be processed materials, but a spectacularly expanding element of the trade in recent years has been the category 'highly fabricated end products'."[1]

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1. Ibid., p. 45

Canadian manufacturing was first established on a major scale in the provinces of Quebec and Ontario. Probably because of "head start" internal and external economies that accompany established industrial complexes, these two provinces have been able to rapidly expand their manufacturing base. A trained labor force, an established transportation system and a large local market are examples of why most manufacturing firms chose to locate in the East.

Despite the East's historic head start, Alberta has broadened and diversified its manufacturing base. Since the Second World War Alberta has rapidly increased her net value of manufacturing production. "From 1940 to 1968 the net value of manufacturing production has increased fifteen fold to $604 million; the gross value increased over fourteen fold to $1,649 million."[1]

Along with this expansion of Alberta's Secondary Industries, there has been a sharp divergence from the historic trend in the range of products produced in Alberta. Table 2 in the Appendix shows the development of Alberta's Secondary Industries with particular emphasis on the period 1957 to 1969. The strong showing of the clothing, metal fabricating, machinery, transportation equipment and the electrical products industries is indicative of the trend in Alberta away from a resource based economy.

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1. Alberta Bureau of Statistics, Alberta Industry and Resources: 1970 Edition, Department of Industry & Tourism Publications, pp. 19. Net value is defined as the "value added" by each industry. The measure is determined by deducting from the total value of output, the costs of all materials and supplies consumed in the production process.

In recent years larger plants and the benefits derived from specialization and economies of scale have become more evident in Alberta. Between 1952 and 1968 the number of Alberta plants, "each with annual gross value of shipments of over $10 million increased from eight to twenty-nine; the number with annual gross value of shipments of from $1 million to $10 million increased from 74 to 211."[1]

Alberta producers not only can but are exporting manufactured products to other countries. Clothing, telephones and equipment, oil field production equipment, rubber tires, agricultural machinery, wood pulp, ceramic products, prefabricated buildings, mobile homes, trailers, chemicals and textiles, are typical of the diverse range of exports.[2]

The trend of Alberta's economy away from a resource base linked with the world trend in international trade, indicates a bright future for this province's international trade.

There has been considerable research in the past on the basis of international trade; the role international trade plays in the Canadian economy; and the effect international trade has on the rationalization of various industries. Unfortunately there has been very little research done on the relationship between Alberta and the international trade community. As a result many firms are shaping their conduct in world markets in a state of "no knowledge".

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1. Ibid., pp. 20
2. Ibid., pp. 21

The research outline in the first part of this chapter hopefully will provide an insight into the current situation which is better than this "no knowledge" state. It is not the author's intent to provide a treatise that describes all or even many of the problems that presently or potentially exist. The ambition of this undertaking is to establish a point of departure for future studies and in doing so provide a basic framework in which this research can be executed.

Literature Survey

Examination of the published literature such as The Canadian Journal of Economics showed a complete lack of research with respect to the two hypotheses mentioned. Various departments in the Federal and Provincial Governments were contacted and in each instance there was no evidence of any work having been done in this area.

A great deal of time was also spent examining abstracts of Doctoral Dissertations and Masters Theses from Canadian and U.S. universities, however this search was futile as no research at all was found in the area to be studied.

Chapter II

RESEARCH METHOD

Introduction

In order to examine the two hypotheses fifteen interviews were conducted. Through these interviews an attempt was made to determine whether or not practicing executives considered the holdings of assets and the financing of these assets in the decision to enter or maintain foreign markets.

The Sample

For reasons summarized in Chapter 1 it was felt that the logical sector of the Alberta Economy to use as the basis for the empirical research would be the secondary industries. Rather than select a sample from all secondary producers it was decided to limit the examination of the two hypotheses to only those industries that were actually involved in foreign trade.

The Alberta Department of Industry and Tourism publication, Alberta Industry and Resources: 1970 Edition, lists the following secondary industries as being involved in foreign trade: agricultural machinery, ceramic products, chemicals and textiles, clothing, mobile homes, oilfield production equipment, pre-fabricated buildings,

rubber tires, telephones and equipment, trailers and wood pulp.[1]

At the suggestion of a representative of the Federal Department of Industry Trade and Commerce this list was cross referenced with the Canadian Manufactures Index. This index lists all those firms in Canada that are producing in any given industry. The listings also indicate those firms that are either involved in foreign trade or plan to enter foreign markets in the near future.

Although there was some question as to the justification of including those firms that had only indicated that they were planning to enter foreign markets, it was decided that they could provide valuable information. It is the writer's belief that these firms could provide answers based on immediate rather than ex post information.

By consulting the Canadian Manufactures Index it was found that thirty-one firms in the above mentioned industries were either involved in or planned to enter foreign markets. This list of thirty-one firms was used as the basic sample to be studied. This procedure was justified because the governments list of firms that are involved in foreign trade was not available, and because of the high cost of interviewing a random selection of all firms in these industries.

The thirty-one companies were located in various areas of Alberta. There were eleven in Edmonton, eleven in Calgary and the

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1. Alberta Bureau of Statistics, Alberta Industry and Resources: 1970 Edition, Department of Industry and Tourism publication, p. 21

remainder were spread out over Alberta with many in rural areas. For reasons of research economies it was decided that only those twenty-two firms in Calgary and Edmonton would be contacted.

Initial contact with these firms was by letter[1] sent to the person listed in the Canadian Manufactures Index as being the senior officer of the company.

Of the 11 companies contacted in Edmonton, one was out of business. The ten remaining companies were then contacted by a follow-up telephone call to arrange an interview. To insure a face to face interview with the potential respondent every effort was made to refrain from being forced to interview by telephone.

Of the ten firms in Edmonton that were contacted, one firm was a branch office of an Eastern company and the General Manager was not at liberty to discuss matters relating to markets or finances. Four other firms would not allow an interview on the grounds that they were not currently involved in foreign trade and that they did not wish to discuss their future plans. The remaining five firms were very interested in discussing their involvement in foreign trade and allowed an interview to be arranged.

Letters were sent out to eleven companies in Calgary and telephone contact was made within three to seven days following the receipt of these letters. One firm was impossible to trace by telephone. Although the letter was not returned, it is assumed that this firm had

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1. See appendix 1 for a copy of the letter sent to the firms involved in the study.

also gone out of business. Interviews were arranged with the remaining ten firms and were conducted within a ten day period.

The Interview

The purpose of the interview was to determine whether or not those firms that service foreign markets in fact have assets that differ from those assets held by firms not involved in foreign trade. If the assets were different, what return on the investment in these assets were required? Is there more or less risk involved in foreign trade as opposed to domestic trade? Does this risk hinder the entrance into foreign markets or make it difficult to obtain funds for financing foreign sales?

For those firms just contemplating entry into foreign markets, the interview was designed to determine whether they felt they required these assets and if so, was the financing of these assets a barrier to their entry?

An interview outline as detailed below was used to investigate the two hypotheses.

Part I

The questions in this section are of a general nature and are intended to give the interviewer an overall view of the firms relationship to international trade.

1. What type of goods do you export? The purpose of this question was to provide a point of departure and to establish whether or not the firm actually exported. The latter is of considerable importance in that the interview takes an "as if" approach if they do not export.

2. What is the dollar value of your exports?

3. How important are these exports in relation to the overall sales of the firm?

These questions are used to determine the relationship between the firms export and domestic sales. What is the primary market and are export markets essential to the well being of the firm?

4. What do you see as the most difficult problems facing a company wishing to engage in international trade? This question solicits from the respondent an enumeration of the problems he faced or faces in international trade, as well as his views about potential problems.

5. Do any of these problems relate specifically to financing of export sales? The purpose of this question is to develop a discussion of the items given in response to question four in terms of the financing of export sales.

6. Are you required to hold certain assets for foreign trade that are different from your domestic requirement such as foreign held inventories and foreign receivables?

(YES -- go to Part II

NO -- go to next question)

7. <u>If you were to stop trading in foreign markets today, would a substantial portion of your productive capacity be released for meeting the needs of your domestic market</u>?

(YES -- go to Part II

NO -- go to question 8)

8. <u>If you were to stop trading in foreign markets today, would a substantial proportion of your current assets, namely inventories and receivables be available for liquidation</u>?

(YES -- go to Part II

NO -- terminate)

Question 6 related directly to Hypothesis 1 and is meant to determine whether or not they actually hold assets that could be directly associated with their participation in foreign trade. Questions 7 and 8 attempt to attain the same information using a more circuitous approach.

<u>Part II</u>

This section deals with the determination of what exact assets are required and the relationship of these assets to the rest of the firm.

9. <u>What specific assets are required</u>:

Canadian receivables?
Foreign receivables?
Inventory held in Canada?
Inventory held abroad?
Canadian held plant and equipment for foreign production?
Foreign held plant and equipment for foreign production?

Canadian held plant and equipment for foreign distribution?
Foreign held plant and equipment for foreign distribution?
Foreign exchange balances?
Other?

By presenting a partial list of assets that may be required, this question solicits other types of assets that may be used in whole or in part for foreign trade.

10. What are the values of these assets? This question is meant to establish the relationship between the assets held for foreign trade and the overall asset structure of the firm. It also enables the interviewer to establish the sales generating power of these assets. For example it might be the case where 25% of the firms assets are generating 45% of the sales. If so, the perceived risk associated with foreign trade could be offset somewhat by the actual return on the assets involved. Given this information further questions can be presented to determine whether this is actually the case of whether the responsdent had underestimated the amount of assets that were actually involved in their foreign sales.

11. What return on investment in these assets do you require?

Same as the rest of the firm? Why?
Greater than the rest of the firm? Why?
Less than the rest of the firm? Why?
Don't know?

This question is meant to get at the perceived risk characteristics of the firms foreign markets. The required return on the firms investment in foreign sales and the risk associated with foreign sales is then discussed in greater detail in the next section.

Part III

12. Is the risk involved in foreign trade greater or less than in domestic trade? This question is used to determine if the respondent considered the foreign market as being riskier and why.

13. Do you use different sources of financing for foreign trade than you do for domestic trade? The purpose here is to determine if the perceived risk associated with foreign trade is substantiated by lending insitutions. If so, were they forced to go to different sources of funds to finance their foreign trade? Another possible situation could exist where the source used for financing domestic trade may not want to finance a firms foreign trade because of the lack of specialized knowledge. For example, a firm that factors domestic receivables may not want to factor foreign receivables, not because of any risk considerations, but rather because they are not represented abroad.

14. Has your soliciting of funds for foreign trade led you to sources you did not know about previously? This question is linked wo question 13 and is used to determine the extent of their financing problem if there was one.

15. Do lending institutions offer the same rate for the financing of your assets earmarked for international trade as they do for those for domestic trade?

16. Do lending institutions give the same weight to your foreign holdings of receivables and inventories as they do domestic

holdings with regard to the security of these assets?

These two questions require the respondent to discuss in greater detail his notions of the risk involved in foreign trade and his actual experience in financing foreign trade. In the end it is hoped that the writer will be able to establish whether or not financing of assets present a problem to those firms either presently involved in or contemplating entry into foreign markets. It is also of interest whether or not this barrier is primarily a perceived one or whether it is a problem actually encountered in the soliciting of funds for the participation in foreign trade.

17. Do you know of any government agency that offers better rates for the financing of assets used for foreign trade than do private lending institutions? Of interest here is whether the respondent is aware of the Export Development Corporation or similar agencies. A negative answer may indicate a possible reason for some of the firms difficulties associated with international trade.

18. Would you finance a further expansion into foreign markets if you could? Why? What rate of return would you expect on such a venture? The response to this question hopefully provides some further insight into the differential cost of borrowing for foreign trade. If a high return on investment in foreign trade is possible, an allowable difference in borrowing cost may be indicated.

Interview Technique

Before the interviews were conducted some time was spent in evaluating the rather structured question sheet. Not wishing to destroy any part of the sample by conducting trial interviews, suggestions on the content of the questionnaire and the method of interviewing were solicited from the members of the thesis committee as well as three professors in the Faculty of Business Administration and Commerce. These suggestions and comments were built into the questionnaire and their response to the questions considered before the actual interviews took place.

In some cases it was necessary to elaborate on some of the questions outlined in the questionnaire. However, every effort was made to follow the questionnaire as closely as possible. In some instances the respondent would answer two or three questions at a time, and in order not to inhibit his future responses, he was allowed to do so.

All interviewees were the senior executive of the firm in Alberta. Eleven were the President of the firm and six were either General Manager or Vice President of Operations located in Alberta. All the respondents were assured that their names or the names of their firms would not be published. Since the study dealt with markets and the financing of sales, this was necessary to obtain their cooperation. In order to verify the findings of this study the author is prepared to supply the list of firms interviewed, the

only restriction being that it be used only with respect to academic pursuits.

The interview findings are recorded in the first person, and represent a paraphrasing of the notes taken on the respondents remarks. These notes were supplemented by tape recordings of the writer's impressions made within one half hour after the completion of the interview. If a respondent could not reply to a question the question is omitted from the interview report. Data that was made available is not reported if it would give any indication to the identity of the firm. Although it was necessary to arrange the findings in a form that was more coherent than the interview, every effort was made to represent the remarks of the respondents as accurately as possible.

The next chapter is devoted to the presentation of the findings on each of the fifteen interviews.

CHAPTER III

Interview #1

We have been exporting high pressure, low volume pumps and motor valves for the past fifteen years. Approximately $115,000 or 75% of our sales go to buyers outside of Canada. We consider our markets in the U.S. as the most important market that we have.

Our entry into foreign markets resulted from the invention by our Founder of a unique product for the application of a new chemical. Our first customer was a U.S. firm and since then our domestic market has been considered a supplement to this market.

Any problems we faced at the outset were not unique to our firm. None of these problems relate specifically to the fact that our customers are foreign.

The problems we are faced with at this time are unique to those firms in the export field. The two major problems are the 6% duty on our sales to the U.S. and the unpegged Canadian dollar. The tariff on our products is a major barrier to our increasing sales, however I understand that this rate will soon be reduced to 5%. The problem of the Canadian dollar has resulted in an increase of 5-8% in our foreign selling price. We haven't been able to determine the effect this increase has had on our sales but we know that it will be detrimental.

We do not have any problems that relate specifically to the financing of export sales. We are not at full plant capacity and are thus not in a situation whereby our foreign sales require us to borrow to increase our productive capacity.

We have various assets that are devoted totally or in part to foreign sales. Most of our accounts receivables are foreign and we have a minor parts and supplies inventory in the U.S. for service work. In total about 75% of our assets or $500,000 is invested in our export program.

Since we export almost all of our production it is very difficult to differentiate between the return on foreign sales and the return on domestic sales. Although we consider the risk to be greater in our foreign sales, we require the same rate of return.

The reason we consider export sales to be more of a risk is that our product requires a substantial investment in development work. Any breach of agreement on the part of a customer jeopardizes a good sized investment. A breach of agreement may come through non-payment or a broken contract as a result of an increase in our foreign price based on an increase in the Canadian dollar.

These events seldom happen, however the possibility of a breach of agreement does exist. We try to overcome this problem by being selective in our sales but in many cases our various sources of credit information conflict. We then have to make a value judgement on faulty information. The end result is a considerable lack of confidence in your customers.

We don't use any financing sources that are different than

those available to firms involved strictly in domestic sales. The institutions we use give us the same rate that they would give firms that are only involved in domestic markets. We use the Export Development Corporation for receivables insurance although we are not entirely pleased with them. They don't reduce our risk that much because of the joint insurance clause. They do protect us however, from the possibility of frozen currencies.

We would consider expansion if we had the markets to bring us beyond our full capacity. We would require the same rate of return as we now enjoy.

Interview #2

We have been exporting pressure vessels and oil and gas separators and dehydrators for quite some time. We exported $160,000 or 45% of our sales last year to companies outside of Canada.

These sales result from contacts made overseas by our British parent company and our sister companies. As they see a need for one of our products they contact our head office who in turn requests us to submit a bid. All of our marketing is done for us by our foreign operations.

Initially our most difficult problems were documentation and pricing for foreign delivery. Freight rates, duties and tariffs all added to this problem. We have varying degrees of Canadian content in many of our products and this makes it particularly

troublesome when dealing with the British Preferential Tariff rates.

Our greatest problem right now is that our plant size or the lack of it prohibits us from bidding on jobs in the middle east. The requirement of this market is such that in order to compete we would have to build pressure vessels of a size that is impossible in our present plant.

It is impossible to increase our plant size on an incremental basis so we face two possibilities; restrict our foreign sales or double our investment in plant and equipment. Although we are still in the planning stage it looks as though we are going to follow the latter alternative. We have not found a source of funds for this project but we anticipate some assistance from the Federal Government. The total investment we have in foreign sales is 30-40% of total assets. The new investment would bring this up to 60%.

The rate of return that we require on our assets assigned to foreign sales is the same as that required for our domestic sales. Our pricing policy acknowledges the increased cost of transportation, and packing but not the possibility of any additional risk involved in foreign trade.

We consider our foreign markets to be as secure as our domestic markets. Our companies abroad do all of our marketing and will also look after our receivables. We also insure our receivables through the Export Development Corporation.

Our bankers don't differentiate between our assets and assign a greater interest rate to those ear-marked for our foreign markets.

They look at our company as a total entity.

The financing of our expansion may shed new light on this possibility. If we do in fact have to pay a premium because we are expanding our foreign production facilities held in Canada, we will finance through the Export Development Corporation. When we do expand we will require the same rate of return on our investment as we do now.

Interview #3

We are interested in exporting modular housing units. We have bid on six or seven export contracts but as yet we haven't been successful.

Our major difficulty in expanding into the export field is the financing of the required investment in fixed assets. To service the expanded market we must build up our plant capacity.

The financing of such a venture is difficult and these difficulties relate directly to our size and the instability of the foreign markets. The lending institutions don't think that the larger return in our foreign sales will offset the additional risk we face.

The high proportion of freight in the finished cost, and the diversity of building codes increases the risk associated with foreign trade. When we take on a contract to provide an oil camp to Iran we are locked into this contract for up to a year. Any change in the freight rates or the Iranian building codes could require us to change

our price and face cancellation of the contract.

We anticipate that many of our present assets will be devoted in part to foreign trade and that we will have to take on some assets completely assigned to our exports. Foreign receivables, inventories held in Canada and foreign held inventories would be good examples. The total value of these assets would reflect the degree of our involvement in foreign trade.

The return that we would require on our investment in foreign trade is higher than the return we require in our domestic markets. The additional return is required as a result of the extra risk involved. The requirement of a greater return does not hinder us in our expansion plans. Our studies have shown us that we should not only require a greater return but that we can expect a greater return as well.

Interview #4

We have been exporting on and off for the past twenty years to Montana and other states in the U.S. grain belt. Out total exports make up 10% of our sales or approximately $40,000. Most of our exports to the U.S. are agricultural products. We sell some industrial machinery to Great Britain but his has never amounted to much.

In total our exports are not that important. In one product line most of our production goes to the U.S. In terms of this one product and the investment we have in its production equipment,

exports are very important to us.

Our biggest problem with regard to our export sales is the difficulty of marketing in a foreign country. Our products meet the requirements of countries that are similar in climate to Canada. We are therefore restricted to countries such as the U.S., Russia, Great Britain and Australia. These countries pose different problems. The Russians require a great deal of marketing effort, the British want lenient terms of credit and the Australians have high tariffs.

Several of our problems relate to the financing of foreign sales. Dealing at a distance requires a large in-transit inventory which the seller has to carry. In most of our potential export markets we would prefer to set up plants at or near these markets. Unfortunately we haven't the resources to take such a step.

We have various assets that are assigned solely or in part to our foreign markets. We accept a smaller return on these assets than we do on our other assets. We price our products the same as we do in our domestic markets but the high cost of marketing, the occasional bad debt, and the fluctuating dollar cuts into our net return.

We consider the export market to be somewhat riskier. Our banker is of the same opinion, however the overall effect of this risk is insignificant. Our involvement in exports is too small to change the risk characteristics of the firm.

If we had the funds available we would make a big push to marketing our products abroad. The establishment of a plant in

Australia sometime in the future is not unlikely. We would probably require the same return on this investment as we do now.

Interview #5

We have exported, in the past, up to 10% of our total production. We made our last shipment in 1969 and I doubt if we will make any more.

The export sales that we did have were not that important to us. They helped us over a bad period when we were overstocked but I doubt whether this is a good basis for any involvement in international trade.

Export sales are hard to justify considering the risk involved in extending credit to a foreign customer. It is especially difficult in our industry where the mark-up is as low as it is. Any firm that buys discount clothing is usually quite small with little or no reputation. This makes it virtually impossible to obtain accurate and reliable credit information.

The duty on our products going to the U.S. is 12 $\frac{1}{2}$ percent. This duty, along with the freight makes my products out of reach in terms of price. We just don't have the competitive advantage necessary to compete internationally.

Other than the financing of larger inventories in Canada and inventories in transit, I don't consider the financing of foreign trade to be a major problem. If I had additional funds available I wouldn't

put them in foreign sales but rather into our domestic market where the return is a little more reasonable.

Interview #6

We export some chemicals and industrial detergents to the U.S. and Great Britain but the volume both in dollars and percentage is insignificant.

We don't intend to increase our marketing effort internationally beyond what it is now. We feel that we would be taking too great a risk in doing so. We don't think that the taking on of any more risk is feasible considering the fact that we haven't captured as much of the domestic market as we think we can.

The main reason for the increased risk is that we have to compete with larger companies in markets that are too far away to allow us to participate fully. The soap and chemical industry is ruled by giants and in order to compete successfully, one has to react immediately. This is not possible when you conduct business at a distance.

We are not concerned about the risk associated with our receivables and inventories. The Export Development Corporation will insure these and cover any freeze put on foreign currencies. Our greatest problem is that we can't compete internationally. This is a result of industry characteristics and not because of any financial or political barriers.

Interview #7

We exported $1 million in oilfield production equipment every year for the past four years. This makes up 10% of our total sales and is considered to be of prime importance to us.

We first entered the export market four years ago when our parent company started buying our equipment for their overseas group. We didn't encounter any problems then and we don't have any problems now that relate specifically to our export trade.

All our marketing is done for us by the overseas divisions of our parent company and in effect we do the sub-contracting for our sister companies. Any problems we have with receivables and servicing are taken care of by these companies. The problems they encounter are slight as most of our final customers are companies like Shell and Esso.

We generally look to a return on our assets held for foreign trade that is a little higher than the return on the rest of our assets. In some cases there is little if any difference in that much of the risk involved in selling to certain customers is carried by the overseas group.

We consider our foreign markets to be somewhat riskier than our domestic markets. Various changes in federal policy could deprive us of our competitive advantage. Two such changes are the floating of the Canadian dollar and the possibility of a change in the tariff structure. We also have a very insecure foreign market

in that we must rely entirely on the marketing effort made on our behalf.

We are presently expanding our plant size in order to meet the demands of our export sales. This has required a substantial amount of new investment however, we don't require any greater return on this investment compared to the investment we have in our domestic markets.

Interview #8

We have not begun to export but we are very close to making our first sale. We have considered foreign markets for some years now, but for one reason or another we have not been able to break in. We have a dozen bids out at present, mostly to U.S. firms. We also have the Department of Industry and Trade promoting our industrial chemical line in various countries.

We hope that our foreign markets, once developed, will take up the slack in our production and make up 20-30% of our total sales. We consider foreign markets to be our long range markets and that it is just a matter of time and effort before they reach fruition.

The greatest difficulty that we are faced with is trying to determine the needs of our potential markets. Freight costs are another major problem. In many of our products, transportation makes up 40-50% of our costs and in our solvents and corrosion agent lines this figure can go as high as 120%.

The instability of the Canadian dollar also poses a major problem. It takes us six to eight months to fill a large enough order to ship at the most reasonable freight rate. In this time, our price could change drastically as a result of changes in the Canadian dollar.

None of our problems relate specifically to financing. We will require certain assets such as foreign receivables, foreign inventories, and plant and equipment for foreign production. The amount of investment in these assets would reflect our participation in export markets. We would require a greater return on these assets than we would on our other assets. The increased possibility of bad debts and overstocked inventories makes this necessary.

I don't think that our creditors will penalize us on the grounds that we will take on extra risk. This isn't due to their lack of perception but rather they will consider us to be in a better overall position as a result of greater sales.

Interview #9

We classify our exports into three categories; military contracts, industrial contracts and technical assistance. Our exports make up approximately 45% of our total sales. We manufacture industrialized structures that are pre-built in Canada and delivered to various countries abroad. These structures range from portable housing for remote construction sites to complete communities

with homes, schools, offices, hospitals and recreation centers.

Our extension into foreign sales was so natural as to be almost unconscious. It resulted from a natural outflow in following our domestic customers as they moved around the world. Most of our early exporting was done to Alaska and the rest of the U.S. We faced very few difficulties in this period but as we started exporting out of North America this changed.

Our most difficult problem today is the maintenance of quality control out of North America. Servicing and installation depend a great deal on the work force in other countries. We also are troubled by export packing. Any money you might save by going cheap on packing is taken up by higher cost in servicing and installation.

We have holdings of Canadian receivables, foreign receivables, domestic inventories, plant and equipment for foreign production and distribution, and foreign exchange balances. These all can be related directly to our foreign sales. I have no idea what the total value of these assets are but they would make up a substantial portion of our total assets.

We require the same return on investment in these assets as we do for our other assets. We don't include foreign sales in our sales projections so due to the efficiencies of scale we reap a higher return on the assets assigned to exports.

At one time we considered foreign markets to be riskier than our domestic markets but this isn't the case any more. We insure all of our receivables with the Export Development Corporation. The

10% of bad debts that we are required to cover comes directly from our profit but this has not been substantial.

The floating Canadian dollar has cost us approximately $1/3 million. We have this under control now through purchases of futures which offset this risk a great deal.

We use different sources of funds for our foreign sales or for the establishment of plants overseas. Most of our financing is done through the Export Development Corporation and to a lesser degree through the U.N. and the World Bank. The financing we get from these agencies is generally for the establishment of production facilities overseas or the export of technical assistance. The rates we get from these agencies is somewhat lower than those we would get from the chartered banks.

Interview #10

We export a small amount of oilfield production equipment to customers in the United States. We have also filled one order to Europe. Our foreign sales are very small and of minor importance to our company.

The greatest problem we face in our foreign market is that we cannot get any assistance from the Canadian federal government. We are a foreign owned subsidiary of a U.S. company and the Department of Industry Trade and Commerce will not list us. They fear we will pass on market information to our parent company in the U.S.

The only thing we get from the Government are leads on contracts that require majority Canadian content. We also bid on those contracts where a preferential tariff agreement is in force. In all the other markets, our parent company fills the orders from their U.S. plants.

The only other problem we have is that most of our potential customers are U.S. firms. Our major competition comes from the U.S. and when it comes right down to it the U.S. companies would rather buy U.S. products. They are closer to the source and if they are operating overseas they can in many cases take their equipment over duty free.

We don't have any problems concerning the financing of our foreign trade. We hold varying amounts of assets such as domestic inventories and foreign receivables that are directly related to our foreign customers. The risk in foreign markets is greater but this doesn't hinder us in any way and we don't require any greater or less return on these assets.

Interview #11

We haven't shipped any export orders yet but we are preparing our first order of oil and gas treating equipment for foreign delivery right now. We don't expect exports to be a very large part of our business in the immediate future. By 1980 however, we hope to be an active participant in international trade.

We don't consider the financing of foreign sales to be any barrier at present. Our most important problem is isolating our markets and determining how best to serve them. We are capable of doubling our production without any increase in investment so we don't consider financing to be a problem even in the medium term.

We don't have any assets that we might consider strictly assignable to our foreign sales. This will be the case in the future but the extent of these assets are unknown at present. The risk factor that we would assign to these assets would be the same as we assign to our other assets. Even our receivables will be quite secure as the companies we would be dealing with are established American firms.

If we had more funds available I don't think we would proceed any differently than we are right now. Part of our management philosophy handed down to us by the owners is to progress rather slowly until we are positive that we are moving in the right direction. The end result may or may not require a large investment in our export markets, but regardless of what the investment may be our required return will be the same as the return we require on our present assets.

Interview #12

Our main exports are aluminum die-case parts for agricultural machinery. These sales make up 90% of our total sales and would be valued at approximately $100,000. Due to the similarities

of conditions and the close proximity of the market, most of our sales are to the U.S.

Initially our most difficult problem was trying to market our products. Once our marketing efforts took hold we had to increase our plant size. We didn't face any real problems in financing our new assets. The new investment wasn't that large and most of the funds were generated internally. The rest of the money required was borrowed in the usual manner of small businesses.

The floating Canadian dollar is our most important problem right now. Our price lists are in U.S. dollars and the resultant decrease in the value of the U.S. dollar has cut right into profits.

All of our assets are linked either directly or indirectly to our involvement in foreign trade since we are primarily an export firm. We have holdings of foreign receivables, foreign inventories, Canadian inventories and plant and equipment for foreign production.

Since all of these assets are assigned to foreign sales, the return on these assets are by definition the same as we require for the rest of the firm. We don't consider the U.S. market to be any riskier than the Canadian market. We have some difficulties in collecting our receivables, but in the most part this isn't any different than if we were solely concerned with Canadians.

All our financing is done through our local bank. They view us as a complete entity and as far as I know they don't attach any special significance to the fact that we export.

We don't anticipate any further expansion and if we did the

return we would require would depend a great deal on the cost of money at that time. We are 35% short of full capacity so any decision we would have to take will have to wait for some time.

Interview #13

We export oilfield production equipment and pressure vessels to firms in nine or ten different countries. These exports range from 10% to 30% of total sales and would average somewhere around 15%.

All our foreign sales are done through subsidiaries of our parent company. The international group sends requirement sheets to all the subsidiaries and we bid on those contracts we can fill. When we have an advantage and have the lowest bid we get the contract.

Most of our orders go to those countries that are covered by the British Preferential Tariff Agreement. Since we are competing against our sister companies our only real advantage comes in treaties of this sort.

Our greatest problem in dealing with foreign markets is our lack of productive capacity. We know the demand is there but we can't produce enough to meet this demand. For reasons unknown to us, our head office has not seen fit to finance an extension of our facilities. Whether or not this is due to difficulties in financing I don't know.

Our foreign markets are as secure as our domestic market. The demand doesn't fluctuate any more or less. Our companies abroad

look after all our collections, our marketing and our servicing. We have a large investment in inventories for foreign sales, foreign receivables, and plant and equipment for export products. The risk assigned to these assets is not any different than that assigned to our assets used for domestic trade.

Since we don't do any direct financing here I couldn't tell you whether or not different sources are used for international trade. I do know however, that whenever we do any short term financing lending institutions do not differentiate between our assets used for domestic or foreign trade.

If we had the funds available to us we would expand our efforts in foreign markets. This would also require an increased investment in plant and equipment. The return we would require on this investment would be the same as we require now.

Interview #14

We are not engaged in any export trade at present however we are very interested. Potential export products are gas and oil equipment and oil transmission pipe.

Our major problem is that before we can begin to consider export markets we will have to make a substantial investment in new plant and equipment. The difficulty underlying this proposal is the financing of this investment. We have contacted the local banks and various government agencies but we have yet to reach any agreement.

We feel that we have the market but in order to get funds from these people we will have to have progressed to the point where we have all but completed an export contract.

Another major problem is the lack of any uniform codes regarding pressure vessels. Contacts that we have made in various countries specify different requirements. This is connected with our need for a greater investment. In order to meet these differences in specifications we need new equipment. The high cost of shipping our products abroad also makes it difficult to break into foreign trade.

When we finally do start shipping overseas we will have to have a fairly large investment in foreign receivables. The time lag in communications can cuase delays of up to two weeks which could increase our investment in receivables by 20% over the amount we would hold for similar sales in Canada.

A rather large investment in foreign inventories and plant and equipment for foreign production and distribution would also be necessary. The financing of these assets has posed the greatest problem we've faced so far.

The insecurity of foreign markets, the lack of credit information and the fluctuating exchange rate would necessitate our assigning a greater risk factor to these assets. In order to offset this additional risk we will have to require a greater return on these assets than we would if we were only in the Canadian market.

Interview #15

We export oilfield production equipment and pressure vessels to firms in six different countries. Our sales generally reflect the activity in oil exploration and on a five year average we do about $185,000 in export sales a year. Although this only accounts for 10% of our total sales, the contribution of these sales to net profit is in the neighborhood of 20%.

Our foreign markets are an extension of our domestic markets. Many of our domestic customers are international companies. When they meet similar conditions in other countries, and they need a piece of equipment that they used here, they order from us. Once these orders came in we realized the potential of foreign markets and put some effort into selling these markets. The most difficult part of our early experiences was the time and effort required to market abroad. Even today marketing our products in foreign countries would be classed as our most difficult problem.

The Federal Government gives us a great deal of help. Unfortunately many of our products are custom built and our services cannot be accurately represented by pamphlets and brochures. What we really need is a full time representative making personal contacts overseas.

Financing was never much of a problem. We had the domestic sales to carry us over the difficult times and now our foreign markets take care of themselves.

We hold various classes of assets that are allocated all or in part to foreign sales. We have foreign receivables, some small holdings of foreign inventories required for servicing, and plant and equipment for foreign production. Our total investment in these assets would be approximately 10% of total assets.

We budget for a smaller return on our investment in these assets although our experience is that we exceed this requirement in actual performance. We separate our domestic sales from our foreign for budgeting purposes. Although we price the same for both markets, the increased efficiency resulting from more sales cuts our cost for our foreign sales. The end result is an unepxected high return on our foreign sales. Of course if we put our foreign sales before our domestic sales the opposite would hold true and would point out a basic fallacy in our budgeting procedure.

We don't consider our foreign markets to be any more or any less risky than our domestic markets and neither do the lending institutions that we go to. They assign the same weight to all our assets.

If we had the market or the money to develop our markets we would certainly expand our operations. Our attitude toward the return on this investment might change but I doubt whether we would require a greater return than we do on our investment in the Canadian market.

Chapter IV

SUMMARY

Introduction

This chapter is devoted to the summation of the responses given in the interview. To provide a more coherent form of presentation, each question as outlined in the questionnaire will be dealt with individually. Comments on the implications of the responses will be left to the discussion of the study's two hypotheses in chapter 5.

Responses

Questions 1-3

Of the fifteen companies interviewed, ten were involved in international trade. The remainder were within a year of making their first export shipment. The dollar value of exports ranged from $40 thousand to $45 million and comprised between 10% and 90% of the exporting firms total sales. Four firms considered their export markets to be their primary markets. Seven of the ten exporting firms considered their export markets to be essential to the well-being of the firm. Three of the five firms that did not

export were expecting exports to become a major portion of their sales.

Questions 4 and 5

All but three firms described problems that could be directly related to the fact that they were servicing foreign markets. These problems varied from firm to firm. Five of the respondents considered the financing of assets required for foreign trade to be one of their major problems. Four firms felt that marketing their products abroad was of major importance. Three companies mentioned the floating Canadian dollar as their major problem. Problems of minor importance included transportation, servicing, documentation and tariffs.

Four of the five firms that felt they were restricted in their participation in foreign trade due to financing difficulties, imputed these difficulties to financing an increase in their plant capacity. The fifth firm viewed itself as restricted because of the high cost of carrying a large in-transit inventory.

Questions 6-9

All of the respondents interviewed said that they either had assets that could be related directly to their participation in foreign trade or that they would soon be investing in these assets. Holdings or expected holdings of plant and equipment for foreign production located in Canada was common to all firms interviewed.

Nine of the ten firms that were exporting had holdings of foreign receivables, while all non-exporting firms expected to have holdings of foreign receivables. Seven of the ten exporters had finished goods inventories situated in Canada that were destined for foreign markets and one of the non-exporting firms anticipated such inventories. Three exporting firms had holdings of Canadian receivables that they considered to result directly from the fact that they were exporters.

Two firms that were not exporting anticipated that they would have to hold inventories outside of Canada. Six of the exporting firms had either finished goods inventories or service inventories located in foreign countries.

Three firms that are presently involved in export markets had facilities located in Canada for the distribtuion of their products abroad. Two of the ten exporters had distribution facilities overseas. Only one of the ten exporters had a production facility overseas, while another exporter anticipated the acquisition of such an asset sometime in the future.

None of the non-exporters anticipated holdings of production or distribution facilities located overseas. Two of the companies that are presently involved in exports had holdings of foreign currencies, while none of the five non-exporters anticipated such holdings.

Question 10

In most cases the individuals interviewed were of the opinion that the proportion of their assets attributable to foreign trade reflected the extent of their proportionate involvement in international markets. Six firms explicitly indicated that they thought the proportion of assets assigned to foreign trade to total assets was equal to the proportion of foreign sales to total sales. However, there was not one instance in which the writer was able to determine with any accuracy the exact value of these assets. Three respondents felt that they carried a disproportionately large amount of assets for the foreign sales that these assets generated. The major reason for this was the large amount of inventories in-transit required for foreign trade. One firm considered the amount of assets necessary to service foreign markets to be less than it required per dollar of domestic sales. The reason for this was that their firm did not have any holdings of foreign receivables.

The five non-trading firms were not able to state the amount of assets they would be required to hold in order to participate in foreign trade. However, they too thought that the proportion of their assets attributable to foreign trade would reflect the extent of their proportionate involvement in foreign market.

Question 11

The difficulty that the firms had in isolating the assets

used for foreign trade was paralleled by their inability to indicate the return required on these assets. Five respondents said that they definitely required or would require a greater return and the remainder said that they either didn't know what return they required, or that they required the same return as they earned on their assets assigned to domestic sales.

Question 12

Eight of the fifteen firms interviewed considered foreign markets to be riskier than domestic markets. The risk that these firms associated with foreign trade was generally of two types. First, they felt that the lack of reliable credit information made their foreign receivables less secure. Second, they considered their foreign markets to be unstable. This instability made production scheduling difficult and also jeopardized the salability of inventories that they held for these markets. The reasons for this perceived instability varied and included such things as the floating Canadian dollar, inability to view the market first hand, and possible changes in foreign regulations.

An increase in the value of the Canadian dollar, relative to other currencies, will result in a higher export price. Although none of the firms interviewed could state what the total effect was on their sales, they all agreed that it was adverse.

The fact that only three of the firms interviewed had a foreign

sales staff made a first hand look at their foreign markets very difficult. Changes in market demand generally was not felt until the amount of orders changed drastically.

The instability of foreign markets that resulted from possible changes in foreign regulations only concerned two firms. These firms exported pressure vessels which are subject to strict regulations in most countries.

Questions 13 and 14

Four companies used the Export Development Corporation as a source of funds and one company also used the United Nations Food and Agriculture Organization and the World Bank. Two companies in addition to the four companies knew about the Export Development Corporation but did not feel that they would qualify for any assistance. The remaining nine firms did not know of any sources of financing that related specifically to foreign trade.

Questions 15 and 16

Eight respondents thought that lending institutions offered the same rate for the financing of their assets earmarked for international trade as they did for those for domestic trade. Two respondents didn't think so and five didn't know.

Ten said that lending institutions gave the same weight to their foreign holdings of receivables and inventories as they did domestic holdings when they were used as collateral. Two said that

lending insitutions didn't give the same weight and three didn't know.

Question 17

Only the four companies mentioned under questions 13 and 14 knew of government agencies that offered lower rates for financing assets used for foreign trade. The three agencies mentioned were the Export Development Corporation, the United Nations Food and Agriculture Organization and the World Bank. Only one firm used any of these organizations to any extent for the financing of assets assigned to foreign trade.

Question 18

Five firms felt that they were considerably hampered by the lack of funds in their expansion into foreign markets and three firms would not expand their participation in foreign trade even if they had the funds available. Seven of the fifteen respondents said that they would finance a further expansion into foreign trade if they had the funds to do so. However, the indications given by the seven respondents was such that any expansion was difficult at the present time and these difficulties did not necessarily relate to the fact that they were involved in foreign trade.

Seven of the firms interviewed said that they would require the same rate of return on their investment in foreign trade as they do now, while five said they would require a greater return.

The reasons given by the respondents in favor of expanding their foreign trade efforts related in most cases to the desire of the respondents to utilize their plant capacity to a greater extent. Those firms that would have to increase their plant capacity would do so in anticipation of a higher return on their investment for foreign markets than their existing domestic returns.

Chapter V

CONCLUSIONS

Introduction

The purpose of this study was to examine the financial issues a firm encounters when undertaking or expanding its export sales and to provide a basis from which future research could be done in this area. Two hypotheses were formulated and empirical data was collected to determine the extent of these implications and whether these implications limit Alberta's Secondary Industries participation in international markets.

The two hypotheses that were formulated will now be evaluated in light of the data presented in chapter IV. Since there was no effort made to statistically test the significance of the two hypotheses only general and tentative conclusions will be drawn.

In some areas of the study the need for future research may be indicated. Further elaboration on this research will be presented at the end of the chapter.

Hypothesis One

All of the respondents indicated that they are required to hold certain assets for foreign trade that are different from their domestic

requirements. In all instances a change in both the type and amount of assets was required in order for the firm to participate in foreign markets.

The change in the amount of assets appeared to be only approximately proportionate to the expected increase in foreign sales. This implies that approximately the same accumulation of assets would have been required if the firms had (or were planning to have) comparable sales growth solely on the basis of domestic sales.

Nine of the exporting firms had investments in a different type of asset in the form of foreign receivables. The tenth firm had holdings of foreign inventories, a type of asset that it did not have prior to its entry into foreign trade. All of the non-exporters anticipated a change in the type of assets held in the form of foreign receivables.

Since these assets were required by the firms interviewed, the writer concludes that participation in international trade requires a change in the asset structure of the firm that would not be necessary if the firm limited itself to domestic trade.

A second conclusion that can be drawn is that the risk associated with foreign receivables cannot be classified as an actual barrier to foreign trade by firms already participating in international trade.

Only two of the ten exporting firms said that they considered their participation in foreign trade to be riskier than their domestic trade as a result of insecure foreign receivables. Although both of

these firms were aware of the insurance provisions of the Export Development Corporation, only one of these companies employed these provisions to offset the risk associated with their foreign receivables. This would seem to indicate that the non-insured respondent felt that the risk associated with foreign receivables was slight enough to not warrant the effort required to insure them.

This same conclusion cannot be drawn for that group of respondents that were not yet involved in export markets. Four of these respondents said that the risk associated with foreign receivables was greater than that associated with domestic receivables. All of these firms were aware of the receivables insurance provisions of the Export Development Corporation. All four of the respondents felt that even with the Export Development Corporation insuring 90% of their foreign receivables, that their domestic receivables would still be more secure.

From this a third general conclusion can be stated. The risk that non-exporters perceive to be associated with foreign receivables is a consideration in their decision to enter foreign markets.

Although a great deal of effort was spent trying to determine the value of assets assigned to foreign trade it was impossible to arrive at even close estimates. The willingness of all the respondents to answer questions relating to sales projections, market studies, and financing indicates that this information was not being held back for reasons of security.

The writer concludes rather, that the respondents did not have any clear conception of their investment in foreign markets. In some instances, where most of the sales were foreign, reasonable estimates could be given. The majority of the estimates however were very rough and in many cases just guesses. The inability of the respondents to specify their asset commitment to foreign trade implies a need for a cost accounting type study which will be discussed later in this chapter.

One problem that specifically related to the changes in the asset structure of the firm was that increased amounts of in-transit inventories were required. This increase in inventory size was a result of the length of time that it took to deliver overseas orders.

This was of particular importance to two firms. Their products were heavy enough to require rail or truck transportation to an ocean port and ship transportation to the country of destination. This created large tie-ups of their working capital, for which they relied on short-term money sources. Since they were unable to predict, to any degree of certainty, the amount of inventory tied up in this manner, they were thus forced to go in and out of the short-term money market more often than they cared to.

Another problem that was associated with the change in the asset structure of the firm was that a new type of asset in the form of foreign currencies was required. Two firms had such holdings of foreign currencies and one firm (the largest exporter interviewed)

lost approximately $1/3 million in the six months following the unpegging of the Canadian dollar. By making certain changes in it's investment portfolio, this firm has been able to overcome this problem. The individual interviewed suggested that it was his own lack of knowledge and inability to cope with the international money market that resulted in this loss. He didn't expect to have as many problems in the future.

The other firm that had problems concerning it's holdings of foreign currencies indicated that the investment in foreign currencies was rather small and that the problems were of no real importance.

Two general observations stand out in the evaluation of Hypothesis One. First, a change in the asset structure is required if a firm is to participate in foreign trade. Second, the extent of these asset changes are not known.

The conclusion that the writer draws from these observations is that a change in the asset structure of the firm is required, but that these changes, in general, do not hinder a firm's participation in international trade.

Hypothesis Two

Two facts make the evaluation of Hypothesis Two difficult. First, the respondents were unable to clearly differentiate between the amount of assets necessary for domestic trade and the amount

necessary for foreign trade. Second, the study took place at a time when all firms were perceiving general financing difficulties due to the almost unprecedentedly high current level of interest rates.

Several general conclusions can be drawn, however. First, the financing of assets needed for foreign trade does not differ from the financing of assets for domestic trade with respect to the suppliers of capital. Only one firm out of the six firms that found a different source of funds for financing their foreign trade endeavors had actually used this source. This firm was more generally atypical in that its foreign sales were $45 million as opposed to $1 million in sales of the next largest exporter.

From the data collected it appears that lending institutions offer the same rate for the financing of assets intended for international trade as they do for assets assigned to domestic trade. It also appears that they give the same weight to these assets when they are used for collateral.

The consensus is that lending institutions consider the overall risk characteristics of the firm and do not single out any one class of assets as being riskier than another. There is not sufficient evidence for the writer to conclude that this is in fact the case. The assignment of risk is done by the lender and no effort was made to study the behavior of lending institutions in this matter.

An analysis of the responses given to the question "Is foreign trade riskier?" seems to show a difference between the attitudes of

exporters and non-exporters. Four of the five non-exporters replied that foreign trade was riskier while only five of the ten exporters thought that foreign trade was riskier. The difference appears to be the general lack of experience that non-exporters have in foreign markets. The risk that they assign to foreign trade is perceived risk rather than the actual risk that exporters know. Whatever the reason is for the difference between the two groups, the writer concludes that non-exporters attach a greater risk to foreign markets than do exporters.

An examination of the responses to "What return do you require on your assets allocated to foreign trade?" further emphasizes this difference. Required return on foreign assets, if different from domestic, is probably attributable to risk. This requirement presumably stems from the sensitivity of the firms financing sources (especially from stockholders who bear the brunt of risk exposure) to different risk exposure attributed to foreign trade activity. If this risk exposure is thought to be higher than on domestic assets, a higher-than-domestic return will be required. This in fact seems to be the case for non-exporters. All four of the non-exporters that attributed a higher risk to foreign trade also required a higher return on their investment in assets allocated to foreign trade. On the other hand only one exporter required a higher return on his assets allocated to foreign markets.

There appears to be a conflict in the responses given by four exporting firms. These four firms designated a higher risk factor

to their foreign markets and then replied that they required the same return on the assets allocated to these markets.

The apparent contradiction shown by these firms requiring the same return on their assets allocated to two distinct markets with different risk characteristics could be explained in the following manner.

The respondents may have meant that they require the same return on their assets as they are now earning. The importance placed on this question and the effort made by the writer to ascertain that the question was understood would indicate that this argument cannot satisfactorily explain the same response by four individuals.

The frequent response in terms of pricing may offer some insight into the conflict. Many firms said that their pricing policy was the same for both markets regardless of the greater risk in the foreign markets. Specialization and efficiencies of scale associated with increased market size would allow them "the same" return on their assets. The explanation would then stem from their inability to differentiate between their assets allocated to domestic trade and their assets allocated to foreign trade. The writer is not completely satisfied with either of these two explanations and will suggest further research into this problem in the next section.

Recommendations for Further Research

A major purpose of this study was to provide a point of departure for future research. The reception given by all those firms contacted that were involved in international trade indicates that industry is extremely interested in gaining further insight into the problems associated with foreign trade. In making the following suggestions the writer has limited the recommendations to those questions that will help establish well defined conclusions about the financial implications of international trade participation in Alberta's Secondary Industries.

One of the first questions that should be examined in greater detail is whether or not the carrying of large in-transit inventories limits a firm's participation in international markets.

The first step in the examination of this problem would be to specify the amount of investment required in in-transit inventories for an exporter to service a particular foreign market. The average order size expected and the length of time it takes an order to reach its destination can be used to determine the average annual investment required for any particular market.

A cost could then be assigned to this investment and evaluated in terms of the potential benefits to be derived from the foreign market. If it is found that the cost of carrying the investment in in-transit inventory was large enough to restrict a potential exporter from participating in a given foreign market, certain policy

implications may be evident. An extension of this study might be a cost-benefit analysis of the inclusion of some form of assistance in carrying these inventories in the services already provided by the Export Development Corporation.

As was suggested in the conclusions relating to Hypothesis Two, there is not enough evidence to suggest that lending institutions actually give the same weight to assets allocated to foreign trade as they do to assets allocated to domestic trade, when these assets are used as collateral.

As a step toward establishing a well defined conclusion on this point a comparative study could be made of the rates offered by public and private lending institutions to exporters versus non-exporters. A multi-variant analysis could be used to establish comparability between firms and thus rule out any difference that might exist that are not attributable to whether or not the firm exports.

If a difference in rate does exist a differential cost of borrowing could be established between assets allocated to foreign markets and assets allocated to domestic markets. Once a differential cost of borrowing for foreign trade is established further research can be done to determine whether or not this difference creates a barrier to firms participating in foreign trade. If it does create a barrier various action could be taken by government.

A guarantee program similar to what is now being used for

student loans could be implemented to bring the rate down to what it is for financing assets allocated for domestic trade. Another possibility might be to make loans available through the Export Development Corporation for the financing of assets located in Canada. The implementation of any program like these would have to be preceded by a cost benefit analysis to support non-reliance on a "market test". An analysis of this sort is beyond the scope of this study and will not be discussed here.

The difficulty most firms had in specifying the exact amount of assets that they required for foreign trade and the subsequent difficulties they had in setting a rate of return on the investment in these assets indicates further study must be done in those areas as well.

Assets such as foreign receivables, foreign production and distribution facilities and foreign currencies are not difficult to isolate and accumulate as assets necessary for participation in foreign trade. The difficulty lies in establishing the amount of an asset allocated to foreign trade when this asset is used for both foreign and domestic sales.

A naive estimate might be attained by undertaking a cost accounting approach and assign the cost of an asset according to standards based on product usage. If forty percent of the production of a given machine is sold in foreign market, then forty percent of the investment in that machine could be allocated to foreign trade. Similarly, the amount of investment in other assets such as buildings,

and transportation facilities could be allocated to foreign markets.

A more sophisticated approach to the problem would be to use a regression analysis and compare the changes in the foreign sales account to the changes in the activity of asset expenditures. This analysis could provide us with a reasonable estimate of the assets allocated to foreign trade.

As suggested previously, further research must be done to determine what rate of return is required on the assets allocated to a firm's foreign markets. The first step in the analysis of this problem would be to compare the overall cost of capital of an exporting firm to the overall cost of capital of a non-exporting firm.

The overall cost of capital can be measured directly by using a weighted average of the cost of equity and the cost of borrowing. By using the method previously suggested for the measurement of the cost of borrowing for exporting versus non-exporting firms and the available techniques for the measurement of the cost of equity, a measure of the overall cost of capital for exporters and non-exporters can be achieved.

Once the overall cost of capital of exporters and non-exporters is determined, research can be done to determine the return necessary in foreign markets to cover the cost of capital in the trading firm. If this return is not available to the exporting firm any foreign asset acquisition will be value-detracting.

The major purpose of this study was to provide a point of departure for future studies. This list of possible future research represents what the writer considers to be essential to the expansion of our knowledge of the financial implications of international trade participation by Alberta's Secondary Industries.

It is the hope of every researcher that his work "would persuade the present generation and govern the next." (Sir James Murray-Pulteney, 1776). Although this would be rather presumptuous on the writer's part, it is his hope that he may have at least fulfilled in a minor way, "the most important of our duties . . . to seek means by which we may destroy delusions that can never do more than mislead us." (d'Holbach, 1770).

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APPENDIX

FACULTY OF BUSINESS ADMINISTRATION AND COMMERCE

THE UNIVERSITY OF ALBERTA
EDMONTON 7, CANADA

January 13, 1971

Mr. N. Sadler, President,
X.Y.Z. Mfg. Co. Ltd.,
10000 Jasper Avenue,
Edmonton 14, Alberta

Dear Sir:

There has been a great deal of discussion in recent years about Canada's role in international trade. There has been considerable research in this area, but unfortunately very little is known about the role Alberta's manufacturing firms play.

I have undertaken a study to fill in some of the gaps in our knowledge that presently exist. The first step of this study involves the interviewing of responsible members of firms that export or have indicated that they would like to get into export markets.

I would appreciate the opportunity of interviewing you and will be phoning in the next few days in this regard. May I emphasize, first, that this is an independent academic study and, second, that the information received will be treated as strictly confidential. The participating companies will not be identified, and none of the material will be released in a form which might reveal the identity of individual companies. Your specific restrictions, if any, will be respected.

Yours truly,

G. M. Darychuk

Endorsement:

This research is done as part of the Master of Business Administration program at the University of Alberta. I am Mr. Darychuk's advisor on this research project; if you have any questions about the manner in which the research will be conducted, please feel free to contact me.

G. A. Mumey

Professor of Finance & Business Economics
Faculty of Business Administration & Commerce

GMD/ct

TABLE 1

WORLD TRENDS IN POPULATION, PRODUCTION, AND TRADE, 1876-1965

(index numbers, 1913 = 100)

		Production		Trade volume		Trade unit values		
	Population	Manufactures	Primary produce	Manufactures	Primary produce	Manufactures	Primary produce	Manufactures as % of primary produce
1876-1880	79	25		31	31	102	104	98
1896-1900	90	54	76	54	62	82	77	107
1911-1913	99	95	93	94	97	98	98	100
1926-1930	111	141	123	113	123	145	128	113
1931-1933	117	110	120	81	116	100	68	147
1934-1935	120	133	125	84	114	117	85	137
1936-1938	124	158	135	100	125	120	93	129
1948-1950	145	238	156	132	116	233	259	90
1951-1953	151	297	176	178	133	248	289	85
1954-1956	158	341	191	216	156	244	271	90
1957-1959	166	381	203	251	182	259	257	101
1960	173	432	215	297	208	262	247	106
1961	176	447	215	309	216	264	244	108
1962	179	480	224	334	221	264	242	109
1963	182	506	231	361	233	264	249	106
1964	184	542	231	409	247	267	260	103
1965	190	578	243	446	271	272	252	108
1966 (first 3 quarters)		607		473		277	257	108

Sources: 1876-1959: A. Maizels, Industrial Growth and World Trade. 1960-65: U.N., Statistical Yearbook of International Trade Statistics, various issues, and GATT, International Trade, 1965. 1966: U.N. Monthly Bulletin of Statistics, April 1967.

TABLE 2

VALUE OF MANUFACTURERS' FACTORY SHIPMENTS, BY INDUSTRIAL GROUPS

ALBERTA

(millions of dollars)

	1949	1952	1954	1956	1957	1959	1961	1962	1963	1964	1965	1967	1968	1969
Food & Beverages	212.8	259.3	263.6	287.7	307.0	363.6	394.4	435.2	454.6	501.2	512.7	635.3	682.4	710.0
Textiles	2.0	2.8	4.5	6.0	6.4	7.7	7.8	8.5	9.4	9.1	10.4	12.2	12.4	12.0
Clothing	6.1	7.6	7.0	8.4	9.3	11.2	12.8	15.8	17.6	20.7	22.7	22.0	23.7	25.0
Wood Prod.	36.9	57.6	54.3	54.7	41.1	44.9	39.6	43.1	52.9	56.6	58.3	90.0	75.5	85.0
Paper Prod.	1.9	6.4	7.7	12.3	17.4	35.3	41.3	41.4	46.0	45.0	47.4	49.2	52.0	55.0
Printing & Publishing	11.6	16.0	18.8	23.0	24.8	28.8	31.5	32.2	33.2	36.6	39.7	47.0	51.1	56.0
Iron & Steel Products	13.8	27.0	34.2	55.2	35.7	39.2	57.8	45.0	51.0	82.0	87.9	106.7	134.1	140.0
Metal Fabricating ind.					49.8	52.6	56.1	69.6	72.3	80.8	101.8	97.9	103.0	118.0
Machinery in Industries					2.8	2.7	6.7	10.3	14.9	15.3	20.0	25.6	24.2	28.0
Transportation Equipment	12.5	21.7	19.9	24.3	28.4	28.1	14.0	14.7	16.2	16.6	20.5	41.5	49.5	70.0
Non-Ferrous Metal Prod.	.9	1.3	3.6	17.9	Included in "Iron & Steel Products", 1957-1969.									
Electrical Apparatus	.4	.5	1.0	3.8	3.8	5.0	7.0	7.9	8.6	9.9	11.2	20.5	23.5	26.0
Non-Metallic Mineral Prod.	14.7	23.4	30.1	37.7	41.0	51.5	60.5	71.9	65.9	70.9	80.2	91.8	97.0	112.0
Prod. of Petroleum & Coal	48.2	81.0	102.0	132.8	103.8	108.6	108.6	114.2	125.3	125.4	136.2	145.7	153.8	166.0
Chemical & Allied Prod.	9.3	11.0	26.0	35.3	41.0	55.3	61.3	73.0	81.0	84.8	91.2	114.9	110.1	99.0
Furniture & Fixture Ind.					7.6	9.3	9.1	10.3	10.5	11.5	12.4	16.8	16.5	17.0
Other Mftg.	.9	2.8	2.5	4.0	4.6	6.5	17.0	22.4	24.9	27.4	30.7	32.9	40.4	38.0
Total	372.0	518.4	575.2	703.1	724.5	850.3	935.5	1015.5	1084.3	1193.8	1283.3	1550.0	1649.2	1757.0

Source: Alberta Bureau of Statistics, Alberta Industry and Resources: 1970, Department of Industry and Tourism Publication, p. 29.